

A clean copy of changes to the specification is presented below, a comparison copy is attached:

Paragraph beginning on page 6, line 17:

Referring now to FIG. 2, a data storage system 100 is shown for transferring data between a host computer/server 120 and a bank of disk drives 140 through a system interface 160. The system interface 160 includes: a plurality of, here 32 front-end directors 180<sub>1</sub>-180<sub>32</sub> coupled to the host computer/server 120 via ports 123<sub>1</sub>-123<sub>32</sub>; a plurality of back-end directors 200<sub>1</sub>-200<sub>32</sub> coupled to the bank of disk drives 140 via ports 123<sub>33</sub>-123<sub>64</sub>; a data transfer section 240, having a global cache memory 220, coupled to the plurality of front-end directors 180<sub>1</sub>-180<sub>16</sub> and the back-end directors 200<sub>1</sub>-200<sub>16</sub>; and a messaging network 260, operative independently of the data transfer section 240, coupled to the plurality of front-end directors 180<sub>1</sub>-180<sub>32</sub> and the plurality of back-end directors 200<sub>1</sub>-200<sub>32</sub>, as shown. The front-end and back-end directors 180<sub>1</sub>-180<sub>32</sub>, 200<sub>1</sub>-200<sub>32</sub> are functionally similar and include a microprocessor ( $\mu$ P) 299 (i.e., a central processing unit (CPU) and RAM), a message engine/ CPU controller 314 and a data pipe 316 to be described in detail in connection with FIGS. 5, 6 and 7. Suffice it to say here, however, that the front-end and back-end directors 180<sub>1</sub>-180<sub>32</sub>, 200<sub>1</sub>-200<sub>32</sub> control data transfer between the host computer/server 120 and the bank of disk drives 140 in response to messages passing between the directors 180<sub>1</sub>-180<sub>32</sub>, 200<sub>1</sub>-200<sub>32</sub> through the messaging network 260. The messages facilitate the data transfer between host computer/server 120 and the bank of disk drives 140 with such data passing through the global cache memory 220 via the data transfer section 240. More particularly, in the case of the front-end directors 180<sub>1</sub>-180<sub>32</sub>, the data passes between the host computer to the global cache memory 220 through the data pipe 316 in the front-end directors 180<sub>1</sub>-180<sub>32</sub> and the messages pass through the message engine/CPU controller 314 in such front-end directors 180<sub>1</sub>-180<sub>32</sub>. In the case of the back-end directors 200<sub>1</sub>-200<sub>32</sub> the data passes between the back-end directors 200<sub>1</sub>-200<sub>32</sub> and the bank of disk drives 140 and the global cache memory 220 through

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the data pipe 316 in the back-end directors 200<sub>1</sub>-200<sub>32</sub> and again the messages pass through the message engine/CPU controller 314 in such back-end director 200<sub>1</sub>-200<sub>32</sub>.

Paragraph beginning on page 10, line 18

Q2 B Referring now to FIGS. 3 and 4, the system interface 160 is shown to include an electrical cabinet 300 having stored therein: a plurality of, here eight front-end director boards 190<sub>1</sub>-190<sub>8</sub>, only board 190<sub>1</sub> being shown in FIG. 4, each one having here four of the front-end directors 180<sub>1</sub>-180<sub>32</sub>; a plurality of, here eight back-end director boards 210<sub>1</sub>-210<sub>8</sub>, only board 210<sub>8</sub> being shown in FIG. 4, each one having here four of the back-end directors 200<sub>1</sub>-200<sub>32</sub>; and a plurality of, here eight, memory boards 220' which together make up the global cache memory 220. These boards plug into the front side of a backplane 302. (It is noted that the backplane 302 is a mid-plane printed circuit board). Plugged into the backside of the backplane 302 are message network boards 304<sub>1</sub>, 304<sub>2</sub>. The backside of the backplane 302 has plugged into it adapter boards, not shown in FIGS. 2-4, which couple the boards plugged into the back-side of the backplane 302 with the computer 120 and the bank of disk drives 140 as shown in FIG. 2. That is, referring again briefly to FIG. 2, an I/O adapter, not shown, is coupled between each one of the front-end directors 180<sub>1</sub>-180<sub>32</sub> and the host computer 120 and an I/O adapter, not shown, is coupled between each one of the back-end directors 200<sub>1</sub>-200<sub>32</sub> and the bank of disk drives 140.

In The Drawings:

Proposed changes to the drawings are indicated in red. Approval is hereby requested.